

REMARKS

In this Amendment, Applicant has amended Claims 1 – 16 and added new Claim 17. Claim 1 has been amended to overcome the rejection and specify different embodiments of the present invention. Claims 2 – 16 have been amended to provide proper dependent form and rephrase certain expression. It is respectfully submitted that no new matter has been introduced by the amended and added claims. All claims are now present for examination and favorable reconsideration is respectfully requested in view of the preceding amendments and the following comments.

DRAWING REJECTION:

The drawings has been objected to under 37 CFR 1.83(a) as allegedly failing to show every feature of the invention specified in the claims.

Applicant respectfully submits that the objection is incorrect because the feature “packed in modified atmosphere in the machine” is shown in the Figs. 1 – 3, especially Fig. 1, of the application. According to 37 CFR 1.83(a), “conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box).” As disclosed in detail in the specification (page 4, line 27 through page 5, lines 2 – 14) and shown in Fig. 1, the feature of products 11 being packed in modified atmosphere in the packaging machine 12 is clearly shown in Fig. 1, wherein a tube 16 of plastic film is formed (and visible) inside the inner chamber of the machine 12 around the product and a preservation gas is fed into the tube 16 while the products 11 continuously move through the inner chamber of the machine, so that closed packs 18 containing products 11 in modified atmosphere come out of the machine. In any event, the description on page 5, lines 2 – 4 of the specification clearly indicates that the continuous packaging machine 12, which is a part of the claimed plant, is known to a person of ordinary skill in the art. The drawings as presented are sufficiently shown every feature of the claims according to

37 CFR 1.83(a). Accordingly, withdrawal of the objection under 37 CFR 1.83(a) is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 112 SECOND PARAPGRAPH:

Claims 1 – 8 and 16 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is respectfully submitted that the rejection is incorrect because the presented claims have particularly pointed out and distinctly claimed the subject matter which applicant regards as the invention. It appears that the Examiner has not appreciated the multiple embodiments of the present invention. For example, one embodiment of the present invention is a plant wherein the food products are subject to vacuum before it is packed in a modified atmosphere packing machine. In another embodiment, the food products are subject to vacuum **and modified atmosphere** before it is packed in a modified atmosphere packing machine. The presented claims properly define these embodiments in a clear manner that satisfies the requirement of 35 U.S.C. § 112, second paragraph.

More specifically, according to the claimed invention, as clearly shown in the specification (see, for example, page 8, lines 28 to page 9, line 4; page 5, lines 15 – 18; and page 6, lines 5 – 22), the product 11 to be packed (but not yet packed) is firstly submitted, without stopping it, to vacuum (step 1) that sucks the air from its inside and, advantageously, also to a first exposure to modified atmosphere (step 2), to have the preservation gas substituting the air previously present in the product before step 1, thereby minimizing the return of air into the product before packing. Steps 1 and 2 take place through means 21 before the entrance of the packaging machine 12. Then, once the product has entered the packaging machine 12, the product 11 is wrapped by the tubular film 16 and submitted to a second exposure to modified atmosphere (step 3) by introducing preservation gas into said tube 16 in order to obtain the packed products 18.

As discussed in the specification, step 1 (suction of air from the product before packaging) and step 3 (exposure to modified atmosphere in the packaging machine) are present in the embodiment of the present invention. Alternatively, step 2 (exposure to modified atmosphere after air suction and before packaging in modified atmosphere in packing machine) may also advantageously present in the embodiment of the present invention. In any event, Claim 1 has been amended to rephrase certain expressions and clearly define the present invention.

Therefore, the rejection under 35 U.S.C. § 112, second paragraph, has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, second paragraph, is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 102:

Claim 1 has been rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Ikeda et al. (US 5,027,588), hereinafter Ikeda.

Applicant traverses the rejection and respectfully submits that the present-claimed invention is not anticipated by the cited reference. More specifically, Claim 1 has been amended to further specify “a plant for continuous packing of food products in modified atmosphere, comprising a machine for continuous packing in a modified atmosphere of the food products and a conveyor for continuous sequential feeding of the food products to the machine, wherein before the entrance of the machine, along a transport section of the conveyor near the entrance of the machine, means are present that temporarily submit the food products continuously fed by the conveyor to vacuum before the food products are packed in modified atmosphere in the machine”. The support of the amendment can be found throughout the specification.

According to the embodiment of the present invention as defined, packing of products 11 occurs in an environment characterized by modified atmosphere, i.e., in the tubular film 16 filled with preservation gas and surrounding the products in the packaging machine 12 by merely sealing said tubular film. However, in Ikeda, packing of products

housed in containers 1 occurs in a normal atmosphere by covering the container with film 15 after exposition of the product to preservation gas is termination and it has been moved away from the gas substitution device 5 or 20, as well visible in Figs. 1 and 4 of Ikeda.

In other words, in the packaging machine 12 of the claimed plant, the products are packed and sealed **when** they are exposed to the preservation gas. However, in Ikeda, the products are packed and sealed **after** they are exposed to the preservation gas. Therefore, the packing device of Ikeda cannot be defined as operating in a modified atmosphere, but as operating **in normal atmosphere on a product which has been previously subjected to a modified atmosphere**.

In the plant according to the claimed invention, two processing stations can be identified: a first station (device with bells 22), where the product to be packed is submitted to vacuum and, advantageously, also submitted to a first exposure to modified atmosphere, and a second station (continuous packaging machine 12), where the product is packed with the tubular film containing modified atmosphere.

However, according to Ikeda, two processing stations are a first station (gas substitution devices 5 and 20) removing air from the product and exposing it to modified atmosphere, and a second station (sealer 18). Different from the presently claimed invention, the second station does not perform packing of the product in a modified atmosphere, but **in normal atmosphere** on a product that has been previously subjected to a modified atmosphere. This difference is significant in view of the problems faced by the claimed invention, i.e. packing the product with a maximum rate of preservation gas and a minimum rate of air contained therein.

On the other hand, should the Examiner of the opinion that the packaging device of Ikeda performs packing of products in a modified atmosphere because the sealer 18 is close to the gas substitution device 5 or 20, this means that the gas substitution device 5 or 20 and the sealer 18 are seen as forming a unique processing station (i.e. comparable to the packaging station 12 of the claimed plant). In this case, Ikeda plant would clearly lack

the first station, i.e. the station (corresponding to device 21 with bells 22 of the claimed plant) where pre-treatment by vacuum and preservation gas (if appropriate) is applied to the product before entering the modified atmosphere packaging machine. This is also a significant difference between the present invention and the disclosure of Ikeda.

In addition, a further significant difference is that neither the gas substitution nor the packaging operation according to Ikeda can be considered as continuous operations. In fact, Ikeda discloses that the product to be packed is **intermittently** conveyed by conveyor 2 to enter the gas substitution device and once air has been substituted with inert gas, the conveyor 2 is driven again to move the product container below the film covering and sealing device (see col. 3, line 62 through col. 4, line 1 and col. 4, lines 8 – 10). This difference is significant because the packing speed of the discontinuous machine according to Ikeda is very low (20 products per minute, as indicated in the tale of col. 4 of Ikeda), while the usual speed of continuous plants of the present invention is more than 100 products per minute (see page 9, lines 6 – 8 pf the specification).

In summary, the present invention as defined is significantly different from Ikeda because:

- a first, pre-treatment device is provided, which is designed for temporarily submitting the products to vacuum, and optionally, also to a first exposure to modified atmosphere before they enter the packaging machine;
- the packaging machine is a machine which packs the pre-treated products when they are exposed to modified atmosphere;
- said first device and packaging machine are continuously operating processing stations.

Therefore, the newly presented claim is not anticipated by Ikeda and the rejection under 35 U.S.C. § 102 (b) has been overcome. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 (b) is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 2 – 16 have been rejected under 35 U.S.C. §103 as allegedly being unpatentable over Ikeda in view of Kawaguchi et al. (US 4,640,081), hereinafter Kawaguchi.

Applicant traverses the rejection and respectfully submits that the embodiments of present-claimed invention are not obvious over the cited prior art references. It is respectfully submitted that there are significant differences between the embodiments of the present invention and the disclosures in Ikeda as indicated above. In addition, Applicant respectfully submits that Kawaguchi does not disclose or suggest the present invention because it relates to a vacuum packaging apparatus, i.e. a packing technique that is completely different from and alternative to packing in modified atmosphere (see page 1, lines 9 – 15 of the specification of the present application). It is respectfully submitted that there is no motivation to combine Ikeda with Kawaguchi. Even if they are combined, they will not render the present claimed invention obvious and such combination will not be operable as defined in the present invention, because, as indicated above, Ikeda discloses that the product is packed **intermittently**. Thus, one of ordinary skill in the art would not discern the present invention as claimed at the time of its invention.

Therefore, the rejection under 35 U.S.C. §103 has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. §103 is respectfully requested.

Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

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